



Department of Defense Information Technology Testbed

MANAGE REPOSITORY

Use Cases Functional Requirements

28 January 2002

c3risk inc

ANDRULIS
CORPORATION
The Process Company

DRAFT – JANUARY 29, 2002

Sponsor:

Michael A. Heimstra, Colonel, Field Artillery
Director, Center for Army Lessons Learned

Project Manager:

William M. Kinsey
Center for Army Lessons Learned

Project Officers:

Dr. Scott Lackey
Center for Army Lessons Learned

Mike Reilly
Center for Army Lessons Learned
Directorate of Information Mgmt

Karen Shaw
Center for Army Lessons Learned

Executive Summary

The Object- Oriented Modeling Workshop was conducted from 15-17 January 2002 at the Center for Army Lessons Learned (CALL) Information Technology Center at Fort Leavenworth, Kansas. Representatives from the CALL, Department of Defense Information Technology Testbed (DITT) participated with support provided by c3risk inc. and Andrulis Corporation.

The principal outcomes for the session were to develop use cases and functional requirements would be usable by any agency or office for the MANAGE RESPOSITORY activity.

Initial session work consisted of re-focusing the previously developed MANAGE REPOSITORY activity IDEF0 model from the Commander, CALL's viewpoint to a generic agency perspective. This model was used as the keystone for the remaining segments of the workshop.

After establishing the framework for MANAGE RESPOSITORY activity, the session focused on the main task at hand to validate the draft MANAGE REPOSITORY use cases and to achieve consensus on the associated functional requirements. Using groupware, each use case was thoroughly analyzed, adjustments made, and definitions provided. Embedded within each use case were the associated functional requirements. Session participants thoughtfully examined the functional requirements to ensure applicability and fulfilled a mission need.

In summary, seven use cases were proposed and approved and 67 functional requirements were developed.

TABLE OF CONTENTS

1. Workshop Overview	1
2. MANAGE REPOSITORY Use Cases.....	2
3. Functional Requirements	18
Appendix A – Workshop Participants	1
Appendix B – Agenda.....	1
Appendix C – Agency IDEF0 Model	1
Appendix D – Use Case Definitions.....	1
References.....	1

1. Workshop Overview

The Object- Oriented Modeling Workshop was conducted from 15-17 January 2002 at the Center for Army Lessons Learned (CALL) Information Technology Center at Fort Leavenworth, Kansas. Representatives from the CALL, Department of Defense Information Technology Testbed (DITT) participated with support provided by c3risk inc. and Andrulis Corporation (see Appendix A for a full list of attendees).

The principal outcomes for the session were to develop use cases and functional requirements would be usable by any agency or office for the MANAGE RESPOSITORY activity. (See [Appendix B](#) – Agenda).

The workshop commenced with a brief overview of the process methodology, administrative issues, and a review of the Object-Oriented methodology to include use case and functional requirement development (see [Appendix E](#) – Introductory Briefing).

Initial session work consisted of re-focusing the previously developed MANAGE REPOSITORY activity IDEF0 model from the Commander, CALL's viewpoint to a generic agency perspective. This model was used as the keystone for the remaining segments of the workshop. See Appendix C for the revised IDEF0 MANAGE REPOSITORY model and its glossary of terms.

After establishing the framework for the MANAGE RESPOSITORY activity, the session focused on the main task at hand to validate the draft MANAGE REPOSITORY use cases and to achieve consensus on the associated functional requirements. Using the groupware, each use case was thoroughly analyzed, adjustments made, and definitions provided. The seven approved use cases are:

1. Manage Repository
2. Assign Record Category
3. Support Dissemination
4. Store Document Version
5. Conduct Disposition
6. Update Preserve Record Attributes
7. Suspend Disposition

[Section 2](#) of this document provides the detailed use cases.

In addition, session participants were asked to identify and define the reference classes for each use case. See [Appendix D](#) for a definitional listing of use case terms that include the referenced classes, actors, and glossary of unique items.

Embedded within each use case are its associated functional requirements. Session participants thoughtfully examined each of the functional requirements to ensure their applicability and fulfilled a specific mission need. In total, 67 requirements were identified. See [Section 3](#) for a complete listing of the requirements by use case.

2. MANAGE REPOSITORY Use Cases

[\[return page 1\]](#)

The primary vehicle for transitioning from IDEF0 to object-oriented methodology is via the implementation of use case notation. Use cases facilitate the information flow between a functional defining their needs and the developer understanding what the requirements are and how the potential system might be employed. In essence, use cases center on the usage of the system, rather than on the users themselves, and focus's on *what* the system must do, *not how* it should do be accomplished.

Use cases are scenarios that depict the way in which an 'actor' potentially would interface with a system. Each use case begins with a 'purpose statement', which summarizes rationale for the use case. This is followed by the 'pre-condition' that may exist prior to the interaction. After identifying the 'actors' or principal roles, the use defines the 'main flow' or sequential steps that would be taken to accomplish a particular transaction. During the course of the main flow some of the actions may be complex in nature and therefore may be further detailed in the 'sub-flow' section. 'Alternate flows' are main flow actions that do not follow the required main flow sequence i.e. they are important exceptions that need to be addressed in the system.

'Referenced classes' are those data elements that define the major elements of the use case and provide a detailed level of specificity and assistance for the system developer to construct a class diagram. The glossary defines unique terms associated with the use case. Reference documents are the publications that may be useful in understanding the specific use case process.

Functional requirements are also embedded within the context of each use case. These requirements explicitly state the desired need of the functional. [Section 3](#) presents a summary table of the functional requirements.

Referenced classes, actors, and glossary terms are defined in [Appendix D](#)

The following use cases were approved during the workshop.

1. Name: Manage Repository

Purpose: Control repository contents to ensure reliability and provide capabilities supporting dissemination and disposition.

Functional Requirement:

This activity is covered in-depth in [DOD 5015.2-STD Design Criteria Standard for Electronic Records Management Software Applications dated November 1997](#) (5015.2). Agency specific requirements outside the 5015.2 are provided here.

1. The system shall provide the capability to search on all attributes created or used in this process.
2. The system shall provide the capability to output for viewing, printing and saving all attributes created or used in this process.
3. The system shall provide the capability to output for viewing, printing and saving a copy of the Preserved Record in both its preserved format and its dissemination format.
4. The system shall provide the capability to place a CategorizedRecord into the Records Repository.
5. The system will provide the capability to compare the PreservedRecordSecurityClassificationLevel to the RequesterSecurityClassificationLevel.
6. The system shall provide the capability to “stop the processing” of an ExternalRequestForInformation if the PreservedRecordSecurityClassificationLevel is greater than the RequesterSecurityClassificationLevel.
7. The system shall provide the capability to “stop the processing” of an InternalRequestForInformation if the SecurityClassificationLevel the Preserved Record is greater than the RequesterSecurityClassificationLevel.
8. The system shall provide the capability to output for viewing, printing and saving a “stop the process” DisseminatableDocumentSecurityDiscrepancyReport.
9. The system shall have the capability to establish "user views" based on user profile¹.
10. The system shall have the capability to manage up to 100,000 Preserved Records.
11. The system shall have the capability to manage one Terabyte of data.
12. The² system shall have the capability to associate at least 10 attributes to each Preserved Record.
13. The system shall have the capability to make available a response “query response” within 20 seconds to an “authorized user query” populating (using) 10 attributes against the Preserved Records in the records repository.³
14. The system shall have the capability for an authorized user to refine the query using the "query response" returned from the initial or prior query.
15. The system shall have the capability to make available a response “query response” within 20 seconds with "no record found" to an "authorized user query" populating (using) 7 attributes.

¹ This is to move, make viewable, not make viewable the attributes of a Preserved Record. (e.g. this will constrain certain users from viewing attributes for searching.)

² These are the ten attributes currently listed in C2. Chapter 2 - MANDATORY REQUIREMENTS of the 5015.2.

³ The 5 second response time is for authorized users of the system.

Actor:

- Records Manager
- Records Management Application System
- Authorized Records System User

Pre-condition:

1. A preserved record is present in the repository
2. Agency unique attributes have been defined and associated with the record
3. Target area for produced dissemination copy is identified (to print or to file)

Main Flow:

1. Request for information is received
2. One or more records are identified
3. Dissemination copy of all identified records are produced

Sub Flows:

Alternative Flows:

- 2.1 No records are identified in response to the request for information
- 2.2 No-response (“null set”) notification is made available

Referenced Classes:⁴

Glossary:

References:⁵

⁴ All required classes from 5015.2 and the Department of Defense Information Technology Testbed report - Functional and System Use Cases for Records Management Application Environment May 7, 2000

⁵ DoD 5015.2 and the Department of Defense Information Technology Testbed report - Functional and System Use Cases for Records Management Application Environment May 7, 2000

2. Name: Assign Record Category

Purpose: To associate a preserved document with records that have the same context into a grouping in order to maintain and manage them in a consistent manner.

Functional Requirement:

1. The system shall provide the capability to assign a file classification to a Preserved Document.⁶
2. The system shall provide the capability to assign a file classification to a Preserved Document in “batch” process.⁷
3. The system shall provide the capability to assign a file classification to the Preserved Document based on a FileCategoryRuleSet.⁸
4. The system shall provide the capability to assign a “null” or “no value” to the CreatorRecordCategory attribute.
5. Alternative Flow Option 2 - The system shall provide the capability to stop the processing of a Preserved Document with a "null" or "no value" CreatorRecordCategory attribute.
6. Alternative Flow Option 2 - The system shall provide the capability to store "stopped" Preserved Document with a "null" or "no value" into an assigned folder.
7. Alternative Flow Option 2 - The system shall provide the capability for an authorized user to bypass the "stop" activity for a "null" or "no value" in the CreatorRecordCategory attribute.
8. Alternative Flow Option 2 - The system shall provide the capability to re-insert the Categorized Record back into the process at the activity following the activity that stopped the Preserved Document with a "null" or "no value" CreatorRecordCategory attribute.
9. Alternative Flow Option 2 and 3 - The system shall provide the capability to make available a no value found for the CreatorRecordCategory attribute notice.
10. Alternative Flow Option 2 and 3 - The system shall provide the capability for an authorized user to populate the CreatorRecordCategory attribute.

Actor:

- Records Manager
- Records Management Application System

Pre-condition:

1. A preserved document is available to be categorized
2. A RecordsCategorizationRuleSet exists

Main Flow:

⁶ This requirement is covered in 5015.2

⁷ This requirement allows for mass processing of documents into a single record classification instead of classifying each document individually.

⁸ Use Case 1F Functional and System Use Cases “Lifecycle File Category” Department of Defense Information Technology Testbed report - Functional and System Use Cases for Records Management Application Environment May 7, 2000

1. Identify the CreatorRecordCategory for the preserved document
2. Assign a LifeCycleRecordCategory using the RecordsCategorizationRuleSet
3. Set aside the CategorizedRecord into the Records Repository

Sub Flows:

Alternative Flows:

Option 1

- 1.1 No CreatorRecordCategory is identifiable
- 1.2 Assign a LifeCycleRecordCategory using the RecordsCategorizationRuleSet
- 1.3 Set aside the CategorizedRecord into the Records Repository

Option 2

- 2.1 No CreatorRecordCategory is identifiable
- 2.2 Preserved document is stopped from processing
- 2.3 Process waits for Authorized user (e.g. Records Manager) interaction with the system
- 2.4 Authorized user (e.g. Records Manager) populates CreatorRecordCategory
- 2.5 Authorized user (e.g. Records Manager) reinserts the preserved document back into the process for its assigning of its LifeCycleRecordCategory using RecordsCategorizationRuleSet
- 2.6 Set aside the CategorizedRecord into the Records Repository

Option 3

- 3.1 No CreatorRecordCategory is identifiable
- 3.2 Preserved document is stopped from processing
- 3.3 Process waits for authorized user (e.g. Records Manager) interaction with the system
- 3.4 Authorized user (e.g. Records Manager) leaves CreatorRecordCategory unpopulated (null)
- 3.5 Authorized user (e.g. Records Manager) reinserts the preserved document back into the process for its assigning of its LifeCycleRecordCategory using the RecordsCategorizationRuleSet
- 3.6 Set aside the CategorizedRecord into the Records Repository

Referenced Classes:

1. CreatorRecordCategory
2. LifeCycleRecordCategory
3. RecordsCategorizationRuleSet
4. CategorizedRecord
5. FileCategoryRuleSet

Glossary:

Records Management Application

References:⁹

⁹ DoD 5015.2 and the Department of Defense Information Technology Testbed report - Functional and System Use Cases for Records Management Application Environment May 7, 2000

3. Name: Support Dissemination

Purpose: To describe the process of producing dissemination format copies of preserved records.^{10 11}

Functional Requirement:

1. The system shall provide the capability to associate a ResponseToInternalRequestForInformation with each InternalRequestForInformation.
2. The system shall provide the capability to assign a ResponseToInternalRequestForInformationUniqueIdentifier to all PreservedRecords responsive to the same ResponseToInternalRequestForInformation.
3. The system shall provide the capability to output for viewing, printing or saving a copy of the PreservedRecord in its preservation format.¹²
4. The system shall provide the capability to output for viewing, printing or saving a copy of the PreservedRecord in dissemination format.
5. The system shall provide multiple output capability (batch processing) when greater than one PreservedRecord is identified as responsive to a InternalRequestForInformation.
6. The system shall provide the capability to place all DisseminatableDocuments with the same ResponseToInternalRequestForInformationUniqueIdentifier into a pre-defined location.¹³
7. The system shall provide the capability to output for viewing, printing or saving a copy of all PreservedRecords in PreservationFormat with the same ResponseToInternalRequestForInformationUniqueIdentifier into a pre-defined location.¹⁴
8. The system shall provide the capability to set the default "batch" output to either PreservationFormat or DisseminationFormat.
9. The system shall provide the capability to set the default "batch" output to produce both the PreservationFormat and the DisseminationFormat.
10. The system shall provide the capability to set the "batch" output directory to default to a specific pre-designated place.
11. The system will provide the capability to redact attributes words and phrases based on a RedactedDisseminationCopyRuleSet.
12. The system shall make available a "null" value or "no record response" to the requestor when no Preserved Records are identified as responsive to the RFI.
13. The system shall provide the capability to associate the ResponseToInternalRequestForInformationUniqueIdentifier with each Preserved Record used in response to the ResponseToInternalRequestForInformation.
14. The system shall provide the capability to remove the association between an identified Preserved Record used to meet a ResponseToInternalRequestForInformation by changing

¹⁰ These requirements are the same for External Requests for Information and Internal Requests for Information.

¹¹ Internal and External request for information are separated in order to show there may be a difference in human-to-system interface and access given the location, use and agency owner of the system.

¹² This defines a user interface to the system.

¹³ Location is considered to be a logical directory or sub-directory where the authorized user has write privileges.

¹⁴ Location is considered to be a logical directory or sub-directory where the authorized user has write privileges.

the ResponseToInternalRequestForInformationUniqueIdentifier to “null” or “none” when the InternalRequestForInformationRecord has been properly destroyed after reaching its appropriate disposition.

15. The system shall make available a "null" or "no record response" to the requester when no records meet the criteria of the InternalRequestForInformation.
16. The system shall have the capability for an authorized user to select for viewing, printing or saving zero, one, set or all of the responsive records to the query.
17. The system will provide the capability to do "text searching" of text available in the Preserved Document¹⁵.

Actor:

- Records System Application
- Request for Information Application
- Records Manager
- Authorized User

Pre-condition:

- 1 Preserved records in the Records Repository

Main Flow:

1. Request for information received
2. Preserved record is identified
3. Disseminatable Document of the preserved record is created
4. The Disseminatable Document is made available for review

Sub Flows:

1. Request for information received
2. No Preserved Record is identified
3. No record response is provided

Alternative Flows:

1. Request for information received
2. Preserved record is identified
3. Disseminatable Document of the preserved record is created
4. The Disseminatable Document is redacted
5. The redacted Disseminatable Document is made available for review

Referenced Classes:

ResponseToInternalRequestForInformation
InternalRequestForInformation
DisseminatableDocument
PreservedRecord

¹⁵ The functional representatives who established this requirement were not able to constrain it in such a manner as to make it testable – originally they employed the term “full text search”. Since this terminology is (1) open to interpretation, (2) constrained by technology, and (3) limited to the amount of money to be expended for any given object type, developers are to ensure their current capabilities, whatever they may be are available for use.

ResponseToInternalRequestForInformationUniqueIdentifier
DisseminatableDocument
PreservationFormat
RedactedDisseminatableDocument
RedactedDisseminationCopyRuleSet
InternalRequestForInformationRecord

Glossary:

References:

4. Name: Store Document Version (A41633)¹⁶

Purpose: To provide a copy of a Preserved Record or the latest dissemination format document and to track over time a different version of the same preserved record.

Functional Requirement:

1. The system shall provide the LatestDisseminatedDocument in response to a ExternalRequestForInformation and a InternalRequestForInformation.
2. The system shall provide the capability for an authorized user to output for reviewing, printing, or saving previous versions (VersionDisseminatedDocument) of the LatestDisseminatedDocument.
3. The system shall provide the capability to associate each DisseminatedDocument to the Preserved Record.¹⁷

Actor:

- Disseminating Version Format Application
- Request for Information Application
- Records Manager

Pre-condition:

1. Version of the record exists

Main Flow:

1. Reviewed document is received
2. The document is converted from preservation format to dissemination format
3. The DisseminatedDocument is made available to a requestor

Sub Flows:

Alternative Flows:

Referenced Classes:

VersionDisseminatableDocument
LatestDisseminatableDocument
DisseminatableDocument
DisseminatedDocument
RequestForInformation
InternalRequestForInformation

¹⁶ This Use Case relates to Support Dissemination Use Case 3 in that the whole of the process is the disseminated document and the request for information (external or internal) are the whole record of the business transaction. Further, over the life of the request for information, the system MUST reproduce the disseminated document used to meet the request for information. This relates to and impacts the use of policies and procedures in effect at the time of dissemination (e.g. Redaction Rule Set). The concept here is that those responses along with the RFI required to be kept as a record move back into the RMA but the requirement allows for the saving and managing within a document repository those responses not required to be kept but may be necessary for reference.

¹⁷ This requirement includes multiple Disseminated Documents made over time from the same Preserved Record.

AssociatedVersionDocument

Glossary:

References:

5. Name: Conduct Disposition

Purpose: To execute the destruction or transfer of Preserved Records that have been appropriately reviewed.

Functional Requirement:

1. The system shall provide the capability to destroy a Preserved Record that has been identified as a ReviewedDispositionalRecord (covered by 5015.2).¹⁸
2. The system shall provide the capability to transfer an identified TransferableRecord (covered by 5015.2)
3. The system shall provide the capability to create a RecordDestructionDocument.
4. The system shall assign the FileClassification using the FileClassificationRuleSet to the RecordDestructionDocument.¹⁹
5. The system shall provide the capability to output for viewing, printing or saving attributes necessary to populate a RecordsTransmittalandReceiptDocument (e.g. SF 135).²⁰
6. The system shall provide the capability to create a RecordsTransmittalandReceiptDocument.
7. The system shall provide the capability to create a RecordsTransmittalandReceiptDocument.²¹

Actor:

- RMA
- Records Manager

Pre-condition:

1. A Preserved Record has been identified as being a Dispositional Record.
2. Data necessary to populate the RecordsTransmittalandReceiptDocument attributes have been identified.

Main Flow:

1. Receive Dispositional Record for transfer
2. Generate Records Transmittal and Receipt Document
3. Record transferred
4. File Records Transmittal and Receipt Document in the Records Repository

Sub Flows:

1. Receive Dispositional Record for destruction
2. Generate Record Destruction Document
3. Destroy Record
4. File Record Destruction Document in the Records Repository

¹⁸ This requirement is covered in the 5015.2 STD

¹⁹ This requirement is covered in the 5015.2 STD

²⁰ This record shall have several attribute values that are going to be accessible to be changed in order to annotate the information provided by the receiving agency (e.g. NARA).

²¹ This requirement mandates the system take the RecordDispositionDocument that has had the FileClassification assigned to it and shall make it a record in the system without human intervention or user-required input.

Alternative Flows:

Referenced Classes:

PreservedRecord
TransferredRecord
DestroyedRecord
ReviewedDispositionalRecord
TransferableRecord
RecordDestructionDocument
FileClassification
RecordDestructionDocument
RecordsTransmittalandReceiptDocument

Glossary:

Disposition
Attribute
TransferAgency

References:

6. Name: Update Preserve Record Attributes

Purpose: To review Preserved Records and ensure no duplicates exist in the system and that only appropriate and approved copies of records (Disseminated Documents) are only produced and released to authorized users on a need to know basis.

Functional Requirement:

1. The system shall provide the capability for an authorized user to assign a value to attributes in the ModifiablePreservedRecordAttributeList.
2. The system shall provide the capability for an authorized user to change an attribute value in the ModifiablePreservedRecordAttributeList.
3. The system shall provide the capability for an authorized user to change an attribute value in the ModifiablePreservedRecordAttributeList to “null or none”.
4. The system shall provide the capability for an authorized user to designate by inclusion the use of alpha and numeric characters for use in each attribute of a ModifiablePreservedRecordAttributeList.
5. The system shall provide the capability for an authorized user to designate by inclusion the number of characters for use in each attribute of a ModifiablePreservedRecordAttributeList.
6. The system shall provide the capability for an authorized user to designate by exclusion the use of alpha and numeric characters for use in each attribute of a ModifiablePreservedRecordAttributeList.
7. The system shall provide the capability for an authorized user to designate the number of characters for use in each attribute of a ModifiablePreservedRecordAttributeList.²²
8. The system shall provide the capability for an authorized user to delete an attribute from the ModifiablePreservedRecordAttributeList.²³
9. The system shall provide the capability to stop the processing of a request to delete an attribute value.
10. The system shall provide the capability to output for viewing, printing or saving all values contained in the requested delete attribute.
11. The system shall provide the capability to receive user input/response²⁴ to proceed with the delete request after the current values of the requested delete attribute have been output for viewing, printing or saving to the authorized user.
12. The system shall provide the capability for an authorized user to make an attribute in the ModifiablePreservedRecordAttributeList "inactive".²⁵

²² This requirement is provided in order for the developer to understand that the attributes in the Modifiable Preserved Record Attribute List must be able to be modified by the user of the system to include the content, required characters/numbers, excluded characters/numbers, length of attribute field, input mask (e.g. Social Security Number xxx-xx-xxxx). Ability to create, change and delete the meta-data (the data about data) about the attributes in the Modifiable Preserved Record Attribute List.

²³ This requirement stipulates the history file of the attribute to be deleted.

²⁴ This requirement is intended to verify the continuance of deletion after the requester has reviewed any populated attribute values for the attribute being deleted.

²⁵ This requirement stipulates the history file of the attribute be maintained.

13. The system shall provide the capability for "inactive" attributes to not be viewable by users.
14. The system shall provide the capability for an authorized user to view "inactive" attribute values associated with the Preserved Record.
15. The system shall provide the capability for an authorized user to "activate" an "inactive" attribute.
16. The system shall provide the capability to make available for viewing values changed from "inactive" to "active".
17. The system shall provide the capability to store all previously assigned values for each attribute in the ModifiablePreservedRecordAttributeList for each Preserved Record.

Actor:

- RMA
- Records Manager
- Security Manager

Pre-condition:

1. Disseminatable Documents have been identified for review

Main Flow:

1. Disseminatable Document is available for review

Sub Flows:

Alternative Flows:

Referenced Classes:

DisseminatableDocumentSecurityClassificationLevel
RequesterSecurityClassificationLevel
DisseminatableDocument
SecurityClassificationLevel
DisseminatableDocumentSecurityDiscrepancyReport
HoldOrderIdentifierList
ModifiablePreservedRecordAttributeList
HoldOrderIdentifier
HoldOrderIdentifierReport
DispositionalRecord
FileClassificationChangeReason
FileClassificationAssignedDate
PreservationFormatChangeReason
PreservationFormatChangeDate

Glossary:

References:

7. Name: Suspend Disposition

Purpose: To review Preserved Records and ensure Preserved Records that are scheduled for disposition are reviewed against suspension of disposition notices.

Functional Requirement:

1. The system shall provide the capability for an authorized user to populate a HoldOrderRuleSet
2. The system shall provide the capability for an authorized user to assign a HoldOrderIdentifier using the HoldOrderRuleSet.
3. The system shall provide the capability for an authorized user to change a HoldOrderIdentifier to another valid HoldOrderIdentifier using the HoldOrderRuleSet.²⁶
4. The system shall provide the capability for an authorized user to change the HoldOrderIdentifier to "null" or "no value".
5. The system will provide the capability to output for viewing, printing and saving a list of PreservedRecords with their associated HoldOrderIdentifiers in the HoldOrderIdentifierReport.
6. The system will “stop the disposition” of a DispositionalRecord when the DispositionalRecord has one or more HoldOrderIdentifier(s) other than "null" or "none".
7. The system shall provide the capability to initiate the suspend disposition attribute when a Preserved Record has a HoldOrderIdentifier other than "null"

Actor:

- RMA
- Records Manager
- Security Manager

Pre-condition:

1. Disseminatable Documents have been identified for review

Main Flow:

Sub Flows:

Alternative Flows:

Referenced Classes:

DisseminatableDocumentSecurityClassificationLevel
RequesterSecurityClassificationLevel
DisseminatableDocument
SecurityClassificationLevel
DisseminatableDocumentSecurityDiscrepancyReport
HoldOrderIdentifierList

²⁶ Hold_Order_Identifier by default includes the identification for “null” or “none”

ModifiablePreservedRecordAttributeList
HoldOrderIdentifier
HoldOrderIdentifierReport
DispositionalRecord

Glossary:

References:

3. Functional Requirements

[\[page 1 return\]](#) [\[page 2 return\]](#)

Concurrent with the development and validation of use cases, session participants were asked to construct functional requirements. The generic agency IDEF0 model (see Appendix C) was particularly useful in providing a start point, specifically, the ICOMs (inputs, controls, outputs, and mechanisms).

Tabulated below are the functional requirements that were approved by the workshop participants.

Use Case #1 – Manage Repository	
1.1	The system shall provide the capability to search on all attributes created or used in this process.
1.2	The system shall provide the capability to output for viewing, printing and saving all attributes created or used in this process.
1.3	The system shall provide the capability to output for viewing, printing and saving a copy of the Preserved Record in both its preserved format and its dissemination format.
1.4	The system shall provide the capability to place a CategorizedRecord into the Records Repository.
1.5	The system will provide the capability to compare the PreservedRecordSecurityClassificationLevel to the RequesterSecurityClassificationLevel.
1.6	The system shall provide the capability to “stop the processing” of an ExternalRequestForInformation if the PreservedRecordSecurityClassificationLevel is greater than the RequesterSecurityClassificationLevel.
1.7	The system shall provide the capability to “stop the processing” of an InternalRequestForInformation if the SecurityClassificationLevel the Preserved Record is greater than the RequesterSecurityClassificationLevel.
1.8	The system shall provide the capability to output for viewing, printing and saving a “stop the process” DisseminatableDocumentSecurityDiscrepancyReport.
1.9	The system shall have the capability to establish "user views" based on user profile.
1.10	The system shall have the capability to manage up to 100,000 Preserved Records.
1.11	The system shall have the capability to manage one Terabyte of data.
1.12	The system shall have the capability to associate at least ten attributes to each Preserved Record.
1.13	The system shall have the capability to make available a response “ query response” within 20 seconds to an "authorized user query" populating (using) ten attributes against the Preserved Records in the records repository.
1.14	The system shall have the capability to make available a response “query response” within 20 seconds with "no record found" to an "authorized user query"

	populating (using) 7 attributes
1.15	The system shall have the capability to make available a response “query response” within 20 seconds with "no record found" to an "authorized user query" populating (using) seven attributes.

Use Case #2 – Assign Record Category	
2.1	The system shall provide the capability to assign a file classification to a Preserved Document.
2.2	The system shall provide the capability to assign a file classification to a Preserved Document in “batch” process.
2.3	The system shall provide the capability to assign a file classification to the Preserved Document based on a FileCategoryRuleSet.
2.4	The system shall provide the capability to assign a “null” or “no value” to the CreatorRecordCategory attribute.
2.5	The system shall provide the capability to stop the processing of a Preserved Document with a "null" or "no value" CreatorRecordCategory attribute.
2.6	The system shall provide the capability to store "stopped" Preserved Document with a "null" or "no value" into an assigned folder.
2.7	The system shall provide the capability for an authorized user to bypass the "stop" activity for a "null" or "no value" in the CreatorRecordCategory attribute.
2.8	The system shall provide the capability to re-insert the Categorized Record back into the process at the activity following the activity that stopped the Preserved Document with a "null" or "no value" CreatorRecordCategory attribute.
2.9	The system shall provide the capability to make available a no value found for the CreatorRecordCategory attribute notice.
2.10	The system shall provide the capability for an authorized user to populate the CreatorRecordCategory attribute.

Use Case #3 – Support Dissemination	
3.1	The system shall provide the capability to associate a ResponseToInternalRequestForInformation (outputs to A41633) with each InternalRequestForInformation.
3.2	The system shall provide the capability to assign a ResponseToInternalRequestForInformationUniqueIdentifier to all PreservedRecords responsive to the same ResponseToInternalRequestForInformation.
3.3	The system shall provide the capability to output for viewing, printing or saving a copy of the PreservedRecord in its preservation format.
3.4	The system shall provide the capability to output for viewing, printing or saving a copy of the PreservedRecord in dissemination format.
3.5	The system shall provide multiple output capability (batch processing) when greater than one PreservedRecord is identified as responsive to a InternalRequestForInformation.
3.6	The system shall provide the capability to place all DisseminatableDocuments with the same ResponseToInternalRequestForInformationUniqueIdentifier into a

	pre-defined location.
3.7	The system shall provide the capability to output for viewing, printing or saving a copy of all PreservedRecords in PreservationFormat with the same ResponseToInternalRequestForInformationUniqueIdentifier into a pre-defined location.
3.8	The system shall provide the capability to set the default “batch” output to either PreservationFormat or DisseminationFormat.
3.9	The system shall provide the capability to set the default "batch" output to produce both the PreservationFormat and the DisseminationFormat.
3.10	The system shall provide the capability to set the “batch” output directory to default to a specific pre-designated place.
3.11	The system will provide the capability to redact attributes words and phrases based on a RedactedDisseminationCopyRuleSet.
3.12	The system shall make available a "null" value or "no record response" to the requestor when no Preserved Records are identified as responsive to the RFI.
3.13	The system shall provide the capability to associate the ResponseToInternalRequestForInformationUniqueIdentifier with each Preserved Record used in response to the ResponseToInternalRequestForInformation.
3.14	The system shall provide the capability remove the association between an identified Preserved Record meeting a ResponseToInternalRequestForInformation by removing the attribute used to associate the Preserved Record to the InternalRequestForInformation when the InternalRequestForInformation has been properly destroyed after reaching its appropriate disposition.
3.15	The system shall make available a "null" or "no record response" to the requester when no records meet the criteria of the InternalRequestForInformation.
3.16	The system shall have the capability for an authorized user to select for viewing, printing or saving zero, one, set or all of the responsive records to the query.
3.17	The system will provide the capability to do "full text searching" of the Preserved Document.

Use Case #4 – Store Document Version

4.1	The system shall provide the LatestDisseminatedDocument in response to a ExternalRequestForInformation and a InternalRequestForInformation.
4.2	The system shall provide the capability for an authorized user to output for reviewing, printing, or saving previous versions (VersionDisseminatedDocument) of the LatestDisseminatedDocument.
4.3	The system shall provide the capability to associate each DisseminatedDocument to the Preserved Record.

Use Case #5 – Conduct Disposition

5.1	The system shall provide the capability to destroy a Preserved Record that has been identified as a ReviewedDispositionalRecord (covered by 5015.2).
5.2	The system shall provide the capability to transfer an identified TransferableRecord (covered by 5015.2)

5.3	The system shall provide the capability to create a RecordDestructionDocument.
5.4	The system shall assign the FileClassification using the FileClassificationRuleSet to the RecordDestructionDocument.
5.5	The system shall provide the capability to output for viewing, printing or saving attributes necessary to populate a RecordsTransmittalandReceiptDocument (e.g. SF 135).
5.6	The system shall provide the capability to create a RecordsTransmittalandReceiptDocument.
5.7	The system shall provide the capability to create a RecordsTransmittalandReceiptDocument.

Use Case #6 – Update Preserve Record Attributes	
6.1	The system shall provide the capability for an authorized user to assign a value to attributes in the ModifiablePreservedRecordAttributeList.
6.2	The system shall provide the capability for an authorized user to change an attribute value in the ModifiablePreservedRecordAttributeList.
6.3	The system shall provide the capability for an authorized user to change an attribute value in the ModifiablePreservedRecordAttributeList to “null or none”.
6.4	The system shall provide the capability for an authorized user to designate by <u>inclusion</u> the use of alpha and numeric characters for use in each attribute of a ModifiablePreservedRecordAttributeList.
6.5	The system shall provide the capability for an authorized user to designate by <u>inclusion</u> the number of characters for use in each attribute of a ModifiablePreservedRecordAttributeList.
6.6	The system shall provide the capability for an authorized user to designate by <u>exclusion</u> the use of alpha and numeric characters for use in each attribute of a ModifiablePreservedRecordAttributeList.
6.7	The system shall provide the capability for an authorized user to designate the number of characters for use in each attribute of a ModifiablePreservedRecordAttributeList.
6.8	The system shall provide the capability for an authorized user to delete an attribute from the ModifiablePreservedRecordAttributeList.
6.9	The system shall provide the capability to stop the processing of a request to delete an attribute value.
6.10	The system shall provide the capability to output for viewing, printing or saving all values contained in the requested delete attribute.
6.11	The system shall provide the capability to receive user input/response to proceed with the delete request after the current values of the requested delete attribute have been output for viewing, printing or saving to the authorized user.
6.12	The system shall provide the capability for an authorized user to make an attribute in the ModifiablePreservedRecordAttributeList "inactive".
6.13	The system shall provide the capability for "inactive" attributes to not be viewable by users.
6.14	The system shall provide the capability for an authorized user to view "inactive" attribute values associated with the Preserved Record.

6.15	The system shall provide the capability for an authorized user to "activate" an "inactive" attribute.
6.16	The system shall provide the capability to make available for viewing values changed from "inactive" to "active".
6.17	The system shall provide the capability to store all previously assigned values for each attribute in the ModifiablePreservedRecordAttributeList for each Preserved Record.

Use Case #7 – Suspend Disposition	
7.1	The system shall provide the capability for an authorized user to populate a HoldOrderRuleSet
7.2	The system shall provide the capability for an authorized user to assign a HoldOrderIdentifier using the HoldOrderRuleSet.
7.3	The system shall provide the capability for an authorized user to change a HoldOrderIdentifier to another valid HoldOrderIdentifier using the HoldOrderRuleSet.
7.4	The system shall provide the capability for an authorized user to change the HoldOrderIdentifier to "null" or "no value".
7.5	The system will provide the capability to output for viewing, printing and saving a list of PreservedRecords with their associated HoldOrderIdentifiers in the HoldOrderIdentifierReport.
7.6	The system will “stop the disposition” of a DispositionalRecord when the DispositionalRecord has one or more HoldOrderIdentifier(s) other than "null" or "none".
7.7	The system shall provide the capability to initiate the suspend disposition attribute when a Preserved Record has a HoldOrderIdentifier other than "null"

Appendix A – Workshop Participants

Nancy L. Davis

CALL

Digital Imaging Specialist, Automated Archiving

Ed Feige

Andrulis Corporation

Modeling and facilitation

Larry Jackson

L3 Communications/EER Sys.

CALL

CALLCOMS - CTC

William Kinsey

Center For Army Lessons Learned (CALL)

Contracting, budget, project management

Kathryn Nevins

Center for Army Lessons Learned

Daryll R. Prescott

c3risk inc

Timothy L. Sanz

Center for Army Lessons Learned

Research Division

Karen A. Shaw, CRM

Center for Army Lessons Learned

Record Manager

CPT Joseph J. Thomas

CALL

OPS

Taskings, RFI Manager, MSR

Appendix B – Agenda

[\[return page 1\]](#)

Tuesday – 15 January 2002

- | | |
|------|---|
| 0830 | Welcome |
| 0835 | Introduction <ul style="list-style-type: none">• Administrative• Agenda review• Participant sign-in/introductions• Administrative ground rules• Group decision making ground rules• Expectations |
| 0900 | IDEF Model Update <ul style="list-style-type: none">• Present and validate proposed model changes |
| 1030 | IDEF to OO Modeling Briefing <ul style="list-style-type: none">• CALL TO-BE IDEF to Use Case Transition |
| 1100 | Development of Proposed Process Acquisition Use Cases <ul style="list-style-type: none">• Validate Proposed Use Cases• Develop Additional Use Cases |
| 1200 | Lunch |
| 1245 | Continue Use Case Development |
| 1545 | Session Evaluation |
| 1600 | Session Adjourns |

Wednesday – 16 January 2002

- | | |
|------|-------------------------------|
| 0830 | Continue Use Case Development |
| 1200 | Lunch |
| 1245 | Continue Use Case Development |
| 1545 | Session Evaluation |
| 1600 | Session Adjourns |

Thursday – 17 January 2002

0830	Continue Use Case Development
1200	Lunch
1245	Review Improvement Opportunities
1330	Finalize Functional Requirements
1430	Prioritize Functional Requirements
1500	Next Steps
1545	Session Evaluation
1600	Session Adjourns

Appendix C – Agency IDEF0 Model

The 15-17 January 2002 Object-Oriented Modeling Workshop changed the December CALL IDEF0 model viewpoint to a broader perspective encompassing a generic governmental agency. The workshop members worked within the MANAGE RESPOSITORY activity and provided a number of levels of decomposition.

Presented below is the MANAGE RESPOSITORY decompositions and their associated activity and ICOM definitions.

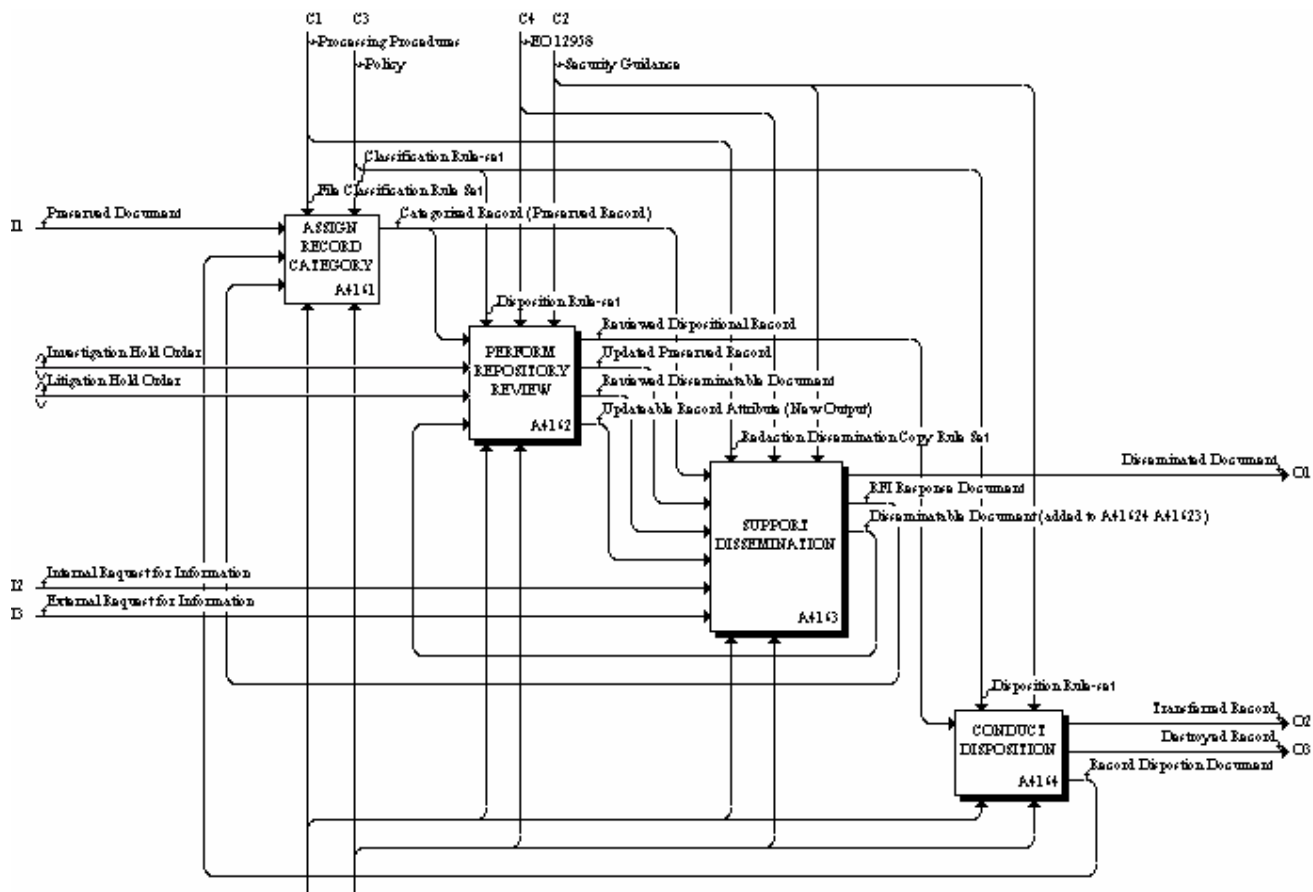


Figure 1 – 1st Level Decomposition of MANAGE RESPOSITORY

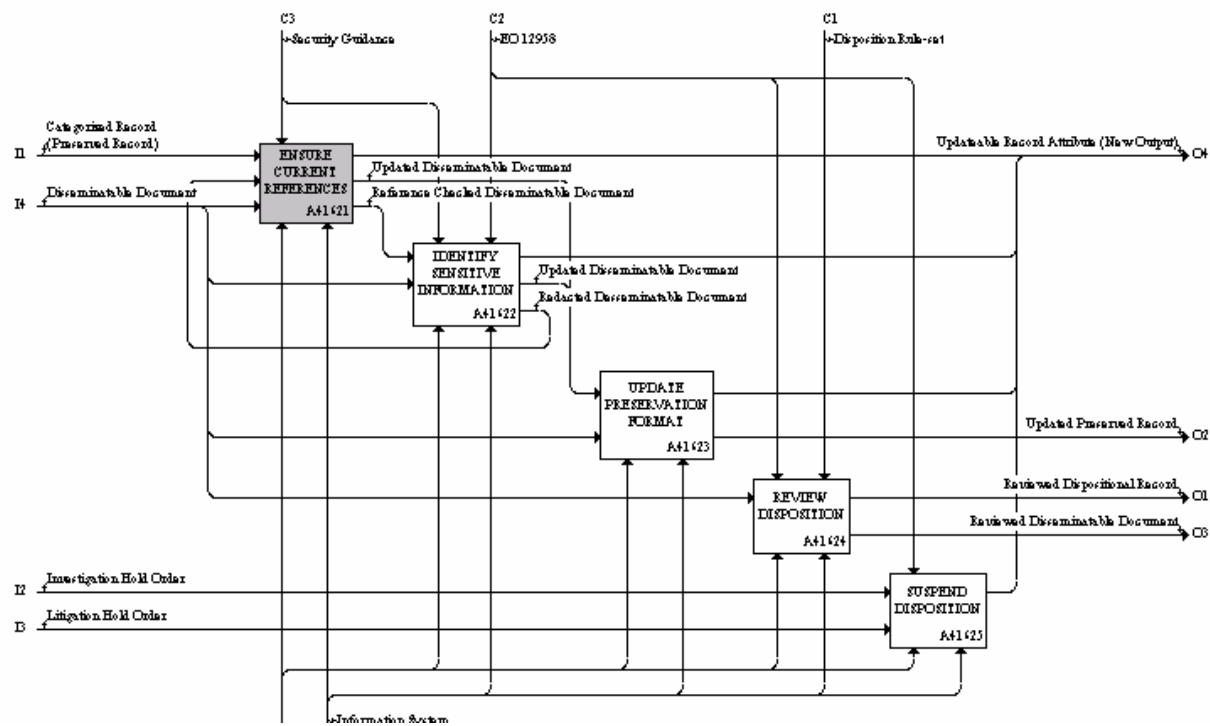


Figure 2 – Decomposition of Perform Repository Review

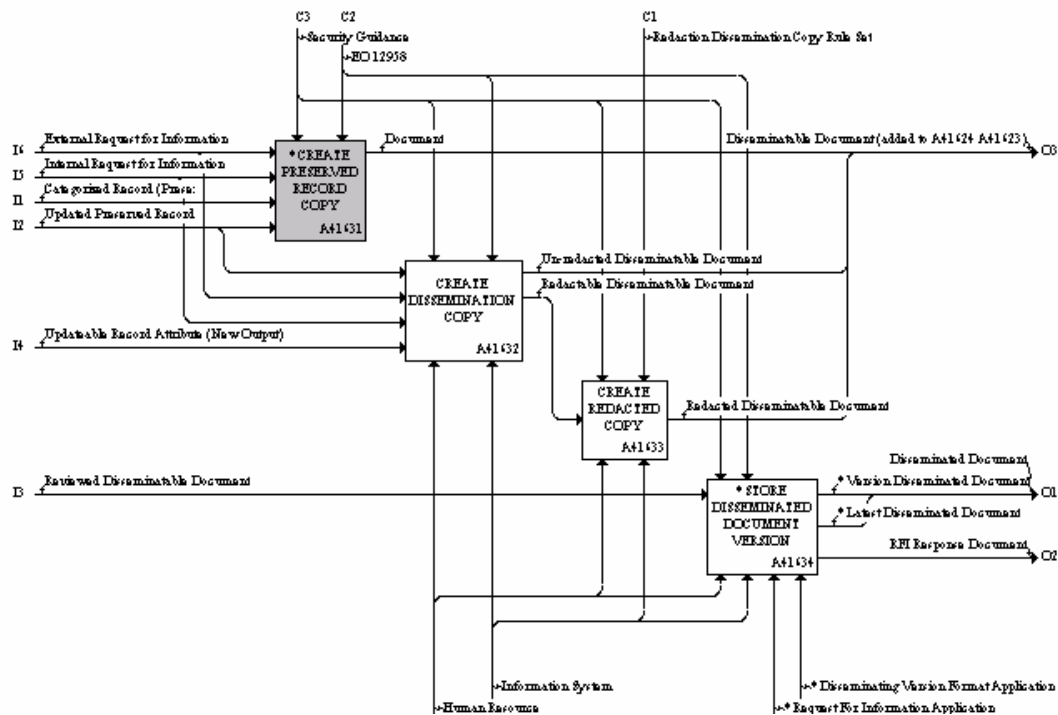


Figure 3 – Decomposition of SUPPORT DISSEMINATION

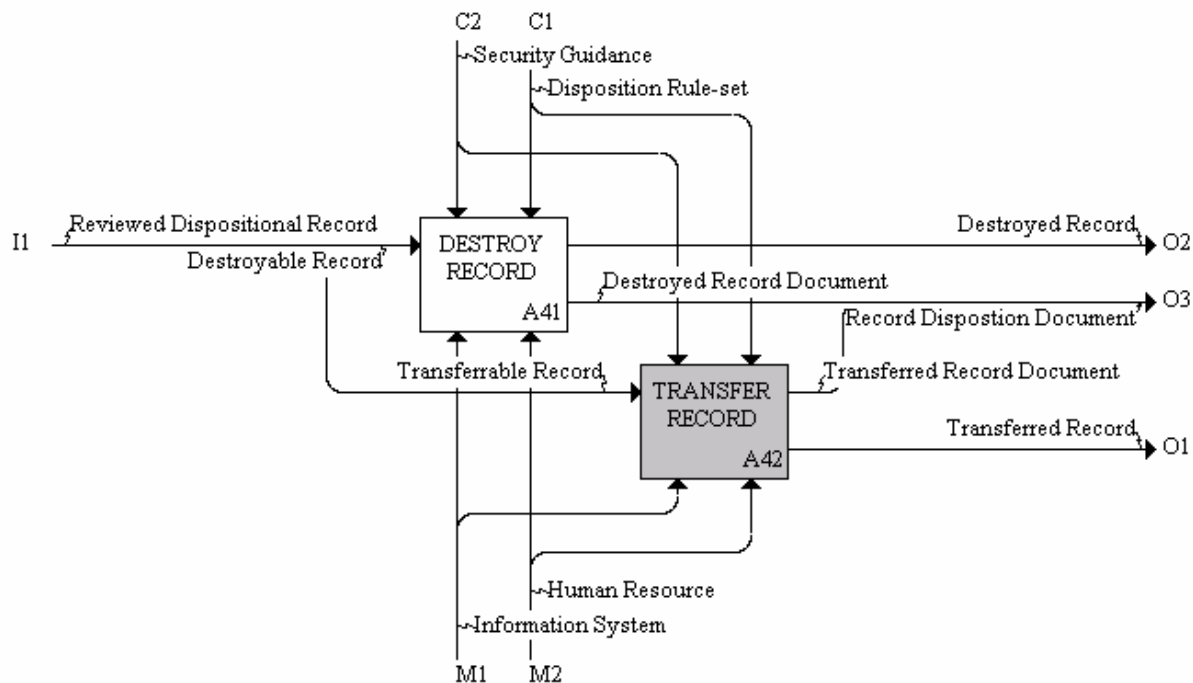


Figure B-4 – Decomposition of CONDUCT DISPOSITION

Glossary

A0: MANAGE REPOSITORY

Control repository contents to ensure reliability and provide capabilities supporting dissemination and disposition.

A1: ASSIGN RECORD CATEGORY

Assign the file classification, using the rule set, to the record.

A2: PERFORM REPOSITORY REVIEW

Ensure that all records in the repository are unique, all internal and external URLs are correct or annotated, any information not authorized for the repository is removed and all records are in a currently accepted format for dissemination.

A21: ENSURE CURRENT REFERENCES

Ensure references within the record are correct or annotated.

A22: IDENTIFY SENSITIVE INFORMATION

Annotate information that is not to be made publicly available.

A23: UPDATE PRESERVATION FORMAT

Ensure the preservation format is the most current available.

A24: REVIEW DISPOSITION

Applying the disposition rule set to ensure that each document is properly executed upon its assigned transfer or destruction date.

A25: SUSPEND DISPOSITION

Maintaining records that would otherwise be transferred or destroyed.

A3: SUPPORT DISSEMINATION

Making available an authorized version in a supported format.

A31: CREATE PRESERVED RECORD COPY

Using the categorized record or updated preserved record create a document copy.

A32: CREATE DISSEMINATION COPY

Create dissemination copy of the record using the dissemination format.

A33: CREATE REDACTED COPY

Using the redaction rule set to produce a redacted copy.

A34: STORE DISSEMINATED DOCUMENT VERSION

In response to a request for information, provide a disseminatable document that may be the latest or a previous version of the document.

A4: CONDUCT DISPOSITION

Reviewing a record using its file classification and disposition to determine if it will continue to be maintained or is eligible for transfer or destruction.

A41: DESTROY RECORD

A record that has been destroyed in accordance with its assigned disposition.

A42: TRANSFER RECORD

A record that has been transferred in accordance with its assigned disposition.

Categorized Record (Preserved Record)

A preserved document against which the file category rules set has been used and a file category assigned

Classification Rule-set

Words, phrases, patterns derived from Army policy and local controlling classification guidance.

Destroyable Record

A Preserved Record having met its disposition through the record categorization rule set and is being processed for destruction.

Destroyed Record

A Preserved Record having met its disposition through the record categorization rule set and has been expunged.

Destroyed Record Document

The document that is evidence of the destruction of records.

Disposition Rule-set

A rule-set which specifies how long records in a record category must be kept to support the business need for which it was created, and states when it will be destroyed or transferred.

Disseminatable Document

A copy of a Preserved Record meeting the criteria of a Request For Information in a standardized format.

Disseminated Document

Requested document that has passed through QA activities and has been formatted into dissemination format.

Disseminating Version Format Application

Hardware and/or software that creates the Disseminated Copy of the Preserved Record.

Document

Information set down in any physical form or characteristic. A document may or may not meet the definition of a record.

EO 12958

Security Information, dated April 17, 1995. This order prescribes a uniform system for classifying, safeguarding and declassifying national security information. Our democratic principles require that the American people be informed of the activities of their Government.

External Request for Information

Information set down in any physical form or characteristic. A document may or may not meet the definition of a record.

File Classification Rule Set

Procedures used to review the context (e.g. sender, receiver, subject, time period) in order to assign the file category to a preserved document making it a record.

Human Resource

Military, civilian and contract employees.

Information System

Hardware and software used by the activities in the process

Internal Request for Information

A request of the agency's repository by an authorized individual of the agency.

Investigation Hold Order

Guidance provided by a higher authority that causes a temporary halt to the dissemination of a document due to an ongoing investigation.

Latest Disseminated Document

Most current copy of the Preserved Record produced on demand using the current rule sets.

Litigation Hold Order

Guidance provided by a higher authority that causes a temporary halt to the dissemination of a document due to ongoing legal proceedings.

Policy

Agency information that governs operations, activities and missions to include supplemental guidance.

Preserved Document

A document and all related attributes that has been identified as preservable and is waiting to be assigned to a file category.

Processing Procedures

Guidelines for internal use that will direct the processing of records/documents prior to acceptance into the repository.

Record Disposition Document

The document that evidences the destruction or transfer of a record.

Redactable Disseminatable Document

A copy of a Preserved Record that has been redacted and/or declassified and is being provided in standardized formats.

Redaction Dissemination Copy Rule Set

Agency handling procedures applied to a Preserved Record used to create a Redacted Disseminatable Document.

Reference Checked Disseminatable Document

A document that has been reviewed for applicable references and is ready for dissemination.

Request For Information Application

Hardware and/or software used to receive, route and track all requests for information, both internal and external, received by the organization.

Reviewed Dispositional Record

A Preserved Record meeting the criteria for being disposed.

Reviewed Disseminatable Document

A copy of a Preserved Record meeting the criteria of a Request For Information in a standardized format.

RFI Response Document

Copy(ies) of record(s) that are responsive to the request

Security Guidance

Policy and procedure created by the Information Security Specialist that affects the processing and procedures used for PROCESS ACQUISITION. Security classification and handling guidance on how to process certain types of documents.

Transferrable Record

A Preserved Record meeting the criteria for being transferred

Transferred Record

A Preserved Record having met its disposition through the RecordCategorizationRuleSet and forwarded to an Authorized Agency.

Transferred Record Document

A copy of a Preserved Record having met its disposition through the RecordCategorizationRuleSet.

Un-redacted Disseminatable Document

A copy of a Preserved Record that has not been redacted and/or declassified and is being provided in standardized formats.

Updateable Record Attribute

A data element that is associated to one or more reference classes that has been revised to reflect its new status.

Updated Disseminatable Document

A copy of a Preserved Record meeting the criteria of a Request For Information in a standardized format that has been revised to reflect a new status.

Updated Preserved Record

An amended document that has met all process requirements will be accepted as a preserved record. The preserved record contains the object(s) and all associated attributes.

Version Disseminated Document

A copy of a Preserved Record created in response to either an External Request for Information or an Internal Request for Information.

Appendix D – Use Case Definitions

[\[return page 1\]](#) [\[return page 2\]](#)

Tabled below is the session defined actors, referenced classes, and glossary terms identified in the Section 2 use cases.

Attribute - A data element that is associated to one or more reference classes.
Authorized User - An individual or thing (e.g., software, application, system) authorized to utilize the Records Repository based on their respective profile information.
Categorized Record - A Preserved Document that has been assigned a File Classification and for an instance in time is waiting to be placed into the record repository as a Preserved Record.
CategorizedRecord - preserved document against which the file category rules set has been used and a file category assigned.
CreatorRecordCategory - The identifier assigned by the agency or individual who generated the document that specifies the record category they assigned to the document.
DestroyedRecord - A Preserved Record having met its disposition through the RecordCategorizationRuleSet and has been expunged.
Disposition - A rule which specifies how long records in a record category must be kept to support the business need for which it was created, and states when it will be destroyed or transferred.
DispositionalRecord - A Preserved Record which has met the rule that specifies how long records in a record category must be kept to support the business need for which it was created, and states when it will be destroyed or transferred.
Disseminatable Document - A copy of a Preserved Record meeting the criteria of a Request For Information in a standardized format.
DisseminatableDocumentSecurityClassificationLevel - Overall security classification of a disseminatable document.
DisseminatableDocumentSecurityDiscrepancyReport - A notice created when the disseminatable document security classification level is higher than the Requester Security Classification Level.
DisseminatedDocument - A copy of a Preserved Record created in response to either an External Request for Information or an Internal Request for Information.
Disseminating Version Format Application - Hardware and/or software that creates the Disseminated Copy of the Preserved Record.
Dissemination Format - A standardized format created on the fly for a disseminatable document.
Document - Information set down in any physical form or characteristic. A document may or may not meet the definition of a record.
External Request For Information - Request for copies of records from the repository by an external individual or agency.
ExternalRequestForInformation - A request of the agency's repository by an authorized individual not of the agency.

ExternalRequestForInformationUniqueIdentifier - The unique set of characters and/or numbers assigned to a external request in order to associate responsive records.
File Classification - An attribute assigned providing guidance on the functional management and disposition of a record (e.g. Modern Army Record Keeping System file codes, General Records System general records categories).
FileClassificationRuleSet - Procedures used to review the context (e.g. sender, receiver, subject, time period) in order to assign the file category to a preserved document making it a record.
HoldOrderIdentifierReport - System generated document that identifies all records associated with one or more HoldOrderIdentifier(s).
HoldOrderRuleSet - Terms, words or phrases derived from Hold Orders.
Internal Request for Information - Request for copies of records from the repository by an individual of the agency that manages the repository.
InternalRequestForInformation - A request of the agency's repository by an authorized individual of the agency.
InternalRequestForInformationUniqueIdentifier - The unique set of characters and/or numbers assigned to a internal request in order to associate responsive records.
LatestDisseminatedDocument - Most current copy of the Preserved Record produced on demand using the current rule sets.
LifeCycleRecordCategory - Repository Owner files classification and disposition guidance applied to the preserved record updateable by authorized users.
ModifiablePreservedRecordAttributeList - Definition: List of specifically designated attributes for each Preserved Record that can be modified by an authorized user
PreservationFormat - The storage format of a record, which may be the creation format or a migration format so that it remains usable (e.g. degradation of the medium, version support issues).
Preserved Document - A document and all related attributes that has been identified as preservable and is waiting to be assigned to a file category.
Preserved Record - A Categorized Record that has been placed into the record repository.
PreservedRecord - A document that has met all process requirements will be accepted as a preserved record. The preserved record contains the object(s) and all associated attributes.
PreservedRecordSecurityClassificationLevel - The highest level of classification held by the Preserved Record.
RecordDestructionDocument - A document that contains the data necessary to track when, how, and why the Preserved Records were destroyed.
Records Management Application - Software used by an organization to manage its records. Its primary management functions are categorizing and locating records and identifying records that are due for disposition. RMA software also stores, retrieves, and disposes of the electronic records that are stored in its repository. }
Records Manager - An authorized user who will make decisions in regards to the management of records within the records repository. A person who possess content skills, an understanding of how and why data is created, who should have access to it, and when it should be destroyed. Further, they must be able to address these and other issues resulting

from emerging business trends at the strategic level as business relationships and processes are being developed. This requires skills, knowledge, and perspective that integrate the tactical and strategic aspects of information and records management, information technology, and executive management.
Records Repository - The system used to store and manage preserved records.
Records Transmittal and Receipt Document - Required inventory of Transferred Records.
Redacted Disseminatable Document - A copy of a Preserved Record that has been redacted and/or declassified and is being provided in standardized formats.
Redacted Dissemination Copy Rule Set - Agency handling procedures applied to a Preserved Record used to create a Redacted Disseminatable Document.
Request for Information Application - Hardware and/or software used to receive, route and track all requests for information, both internal and external, received by the organization.
Requester Security Classification Level - Highest level of classification held by the requestor.
Response To External Request For Information - Copy(ies) of record(s) that are responsive to the request.
Response To Internal Request For Information - Copy(ies) of record(s) that are responsive to the request
Reviewed Disposition Record - A Preserved Record meeting the criteria for being disposed.
Reviewed Disseminatable Document - A copy of a Preserved Record meeting the criteria of a Request For Information in a standardized format.
Search Engine - Software that enables an authorized user to query the Records Repository, receive results, refine the results if necessary, and then view the results.
Security Manager - The individual assigned within the agency responsible for implementing access and control policies.
Suspend Disposition Attribute - The temporary identification to the Preserved Record that its disposition is currently not to be followed.
Transferable Record - A Preserved Record meeting the criteria for being transferred
Transfer Agency - Repository owner authorized to transfer Preserved Records having met their disposition through the Record Categorization Rule Set.
Transferred Record - A Preserved Record having met its disposition through the Record Categorization Rule Set and forwarded to an Authorized Agency.
Version - One of the sequence of documents having the same general form and specific subject and purpose. The sequence often reflects successive changes to a document. (Source: DoD-STD 5015.2)
Version Disseminated Document - A copy of a Preserved Record created in response to either an External Request for Information or an Internal Request for Information.

Attached below is the overview briefing provided to the participants during morning of the first day of the workshop. Its purpose was to review Object- Oriented methodology and provide an introduction to workshop activities.



Object-Oriented Overview

Why OO?

- User involvement and ownership
- System stability - Resilience to change
- Maintainability
- Reusable components
- Data accessibility

What is an Object?

A representation of a real world thing and carries both the *data* describing the real-world thing and the *operations* (program code) that have the *only allowable access* to that data

An object is an entity with behavior

Object Example



Object Example



Three Types of Objects

- **Entity Objects**

Basic objects and classes derived from the real world of the user

- Concrete Objects - people, equipment, goods
- Conceptual Objects - organizations, plans, agreements
- Event and State Objects - sales, hire, birth

- **Interface Objects**

–Objects used to handle communication between the system and external entities such as users, operators, or other systems

- **Control Objects**

–Objects created at a later point to put behavior that does not fit into interface or entity usually handle complex operations e.g. sequencing of events

Object Oriented Development Lifecycle (OODLC)

- **Requirements Analysis**
 - Use case
- **Analysis Modeling**
 - Class model
- **Design**
- **Construction**
- **Testing**
- **Maintenance**

OO Requirements Analysis

To document the users' needs in full detail in a way that is understandable for the users and the developers

- **Includes:**
 - Project Scope
 - Context Diagram
 - Use Case Scenarios
 - Interface Requirements
 - High Order Class Model

OO Analysis Modeling

- **Complete Object Model**
 - **Class diagram**
 - **Class definitions**
 - **Attribute lists and definitions**
 - **Business rules**
- **Apply OO representations (e.g. UML)**

OO Design Phase

- **Models developed at the logical level evolve to physical level i.e. plans**
- **May modify analysis models to reflect environment system will function (e.g. hardware, software, optimization)**
- **Will include number of new objects not related to the real world e.g. permit code re-use, programming simplicity**

OO Construction Phase

- **Build databases**
- **Provide source code for the class operations**
- **Integrate components**

Testing Phase

- **Ensure system works**
- **Perform quality control testing**

Maintenance Phase

- **Covers everything after the system is contractually complete**
- **Fix bugs**
- **Provide enhancements**
- **Perform backups and restores**

Object Oriented Development Lifecycle (OODLC)

- **Requirements Analysis**
 - **Use case**
- **Analysis Modeling**
 - **Class model**
- **Design**
- **Construction**
- **Testing**
- **Maintenance**

OO Requirements Model

- **Purpose:** To document the users' needs in full detail in a way that is understandable for the *users* and the *developers*
- **Becomes** part of the formal contract or agreement between users and developers
- **Is** fully understood by the users
- **Gives** developers requirements in a way that is useful to them

**Functional requirements by functional experts for users interacting with the process.
Without the constraint of technology/systems design**

Why Do We Build Use Cases

- **To effectively capture the requirements of a system.**
 - **We identify the entities (actors) who interact with the system.**
 - **We identify the uses of the system.**
 - **We identify the requirements from the uses.**
- **To document the process**
- **Each use case represents a scenario that someone could follow to make use of the system**

Use Cases

- **Business Use Cases**
- **System Use Cases**

Use Case Guiding Principles

- **The most important requirements must be specified in the use cases**
 - Requirements must be documented in one or more use cases
- **A use case is a play**
 - The actor stays with the script and the play should conclude the same way each time the manuscript is executed
- **A use case case has a beginning, a main body, and an ending**
- **A use case is like an essay written by an elementary school pupil**
- **A use case fits on two pages**
- **A use case is the foundation of system testing**
 - The set of all use case descriptions specifies the complete functionality of the system
- **Users and designers can all sign the use case**

Use Case Template

- **Name/Title**
 - Short active verb phrase
- **Purpose**
 - What and why of this use case
- **Actors**
 - Primary and secondary actors
- **Pre-conditions**
 - What triggers this use case
- **Main Flow**
 - Sequential action steps from trigger to goal attainment
- **Sub Flow(s)**
- **Glossary of Terms**
- **References**
- **Functional Requirements**
 - Technology and interface requirements
 - Implementation requirements

IDEF0 to Use Case Transition

• Activity	Name/Title
• Activity Definition	Purpose
• Mechanisms	Actors
• Inputs, controls	Preconditions
• Sub-activities	Main flow
• Sub-activities	Sub-flows
• Definitions	Definitions
• Controls	Referenced documents
• Improvements	Functional requirements

IDEF to Use Case Transition

IDEF0 MODEL

- **A416 Manage Repository**
- **A416 Definition**
- **M – Human Resource**
 - Information System
- **I – Research Request**
 - Request for Information
- **Sub-activities/definitions**
- **Sub-activities/definitions**
- **Definitions**
- **Controls**
- **Improvement Opportunities**

USE CASE

- **Title**
 - Manage Repository
- **Purpose**
 - Extracted from activity definition
- **Actors**
 - Records Manager
 - Records Management Application System
- **Preconditions**
 - Preserved record is available
 - Target area for request is identified
- **Main flow**
- **Sub-flows**
- **Definitions**
 - Actors, acronyms, unique term, referenced classes
- **Referenced Documents**
 - MARKS
 - Security regulations
- **Functional Requirements**

Use Case Model Objectives

- To portray how users will make use of the system
- To construct the developers' view of what the users want
- To provide a starting point for discovering the object classes
- To provide a starting point for discovering the operations for each class

Use Case Model

- Focuses on the usage of the system, rather than on the users themselves
- Focuses on *what* the system must do, *not how* it should do it

Class Diagrams

- *Attributes* - data elements that belong to the class
- *Operations* - manipulations on the data elements. In IT environments, operations are called business rules.

Utility of Class Diagrams

- **Classes with their attributes model the data of the system.**
- **Class operations characterize the manipulations on the data.**
- **Source codes for the classes are the end products of object oriented programming.**

Example Classes

- **CreatorRecordCategory**
- **LifeCycleRecordCategory**
- **RecordsCategorizationRuleSet**
- **CategorizedRecord**
- **FileCategoryRuleSet**

Functional Requirement

- **Derived from IDEF0 model (ICOMs and activity)**
- **Defined by functional experts**
- **Basic functional requirement**
 - Input
 - Activity
 - Output
 - Single tense language – described as an instance
- **Enhanced functional requirement**
 - Who or what
 - Time from input to response
 - Form and/or type of response (look, feel, manipulability)

Interface Requirements

- **Human interfaces**
 - Preferences on screen layouts
 - Menus
 - Dialog boxes
- **Interfaces with other systems**
 - For each interface how should systems pass data

References

1. Scoping Session Workshop Report - Phase 1A, 20-21 December 1999
2. AS-IS Workshop Report, 11-13 January 2000
3. TO-BE Workshop Report, 10-12 February 2000
4. Object-Oriented Workshop Report, 28-30 March 2000
5. MANAGE REPOSITORY IDEF0 Workshop Report, 11-13 December 2001
6. MANAGE REPOSITORY IDEFO Transition Report, 25 January 2002
7. c3risk inc report to the National Media Laboratory, *Center for Army Lessons Learned, DoD Information Technology Testbed*, 10 November 1999
8. [Department of Defense Records Management Application Design Criteria Standard, DoD 5015.2 STD](#)
9. [Functional Baseline Requirements and Data Elements for Records Management Application Software, Prescott, Underwood, Kindle, August 28, 1995](#)
10. U.S. Department of Commerce, Federal Information Processing Standards Publication 183 (FIPS PUB 183), *Integrated Definition for Function Modeling (IDEF0)*, 1993 December 21
11. U.S. Department of Commerce, Federal Information Processing Standards Publication 184 (FIPS PUB 184), *Integrated Definition for Information Modeling (IDEF1X)*, 1993 December 21